REMARKS

Favorable reconsideration of this application, in view of the present amendment and in light of the following discussion, is respectfully requested.

Claims 1-4 are presently pending in this application, Claims 1-4 having been amended by way of the present amendment.

In the outstanding Office Action, the drawings were objected to; the specification was objected to; Claim 3 was objected to; Claim 3 was rejected under 35 U.S.C. 112, first paragraph; Claims 3 and 4 were rejected under 35 U.S.C. 112, first paragraph; Claims 3 and 4 were rejected under 35 U.S.C. 112, second paragraph; Claim 1 was rejected as being anticipated by Yamamoto (United States Patent Number 6,503,788, referred to below as Yamamoto); Claim 2 was rejected as being unpatentable over Yamamoto; and Claims 3 and 4 were rejected as being unpatentable over Applicant's admitted prior art(AAPA) in view of Yamamoto and Booth et al (United States Patent Number 4,883,743, referred to below as Booth).

As for the objection to the drawings, a separate letter requesting entry of replacement figures is filed herewith, Figure 4 having a legend 'Prior Art' added by way of present amendment. However, each of Figures 1A, 1B and 3A represents a step for manufacturing a planar lightwave circuit embodiment related to the present invention as mentioned in the BRIEF DESCRIPTION OF THE DRAWINGS. Thus, applicants respectfully traverse the Examiner's objection to Figures 1A, 1B and 3A. Also, the technology shown in Figure 5A was first invented and published by the same inventors in the present application, on March 12, 2002, by way of Japanese patent publication number 2002-071994, which publication date is almost a year later from the filing date for present application, March 13, 2001. Thus the art shown in

Figure 5A is believed not to be the Prior Art in view of any statutory aspects for this application.

As for the objection to the specification, applicants respectfully traverse the assertion at P12, line 9 of the Office Action, which asserts that although the specification describes "solder 30 to be removed", there is no indication of a "solder to be applied earlier". However, the specification at P11, lines 9-11 clearly indicates that solder 30 is formed in each fixing site indicated by the dashed line in Fig. 2. Thus, applicants request withdrawal of the rejection.

As for the rejection under 35 U.S.C. 112 first paragraph, Claim 3 has been amended to refer to the first and second slab waveguides. With regard to the rejection of Claims 3 and 4, the claims have been amended to clarify that it is the intersecting planes that divide the slab into two. In view of these amendments, it is believed that Claims 3 and 4 comply with 35 U.S.C. 112 first paragraph.

As for the rejection under 35 U.S.C. 112, second paragraph, Claims 3 and 4 have been amended to clarify the claim language. In more detail, the recitation in Claim 3, "manufacturing method of the metallic film mentioned above" has been replaced by steps to manufacture the metallic film by the limitation "the exit end" in line 6 of Claim 3 being replaced by " an exit end"; the limitation "the metallic film" in line 33 of Claim 3 being replaced by "a metallic film"; the limitation "the position shifting member" in line 19 of Claim 4 being replaced by "a position shifting member"; and the limitation "the route of the light" in line 17 of Claim 4 being replaced by "a route of the light". Thus, amended Claims 3 and 4 are believed to comply with 35 U.S.C. 112, second paragraph.

As for the rejection under 35 U.S.C. 102(e), Applicants traverse the rejection. The alleged metallic film in Yamamoto, which the Office Action asserts corresponds

to the metallic film in Claim 1, is actually "insulating-film 5", and is not a metallic film. As discussed in the 4th paragraph of column 4 in Yamamoto, the insulating-film 5 is a silicon oxide nitride film (an insulating film).

Also, Claim 1 has been amended by way of the present amendment to further clarify the difference between claim 1 and Yamamoto. Amended Claim 1, is directed to a method for manufacturing a planar lightwave circuit, while Yamamoto discloses a method for manufacturing a CMOS semiconductor transistor. The planar lightwave circuit is known as a key device for Wavelength Division Multiplexing optical communication, which can extract only the beams of light having a predetermined wavelength from multiplexed beams at a light receiving side. These technologies are believed to be quite different from each other, and non-analogous.

Since Yamamoto does not disclose the same invention as amended Claim 1, it is respectfully submitted that amended Claim 1 patentably defines over the asserted prior art.

As for the rejection to Claim 2 as being unpatentable over Yamamoto, applicants believe the Office Action has not established a *Prima Facie* case of obviousness. To establish a *Prima Facie* case of obviousness, all the claim limitations must be taught or suggested by the prior art. Yamamoto fails to disclose not only the annealing process as recognized in the Office Action, but also the metallic film as discussed above. Accordingly, the rejection to Claim 2 is believed not to be appropriate.

As for the rejection to Claims 3 and 4 as being unpatentable over the AAPA in view of Yamamoto and Booth, applicants believe the Office Action has not established a *Prima Facie* case of obviousness because Yamamoto fails to disclose the metallic film as discussed above, and thus all the claim limitations have not been

taught or suggested by the prior art. Accordingly, the rejection to Claim 3 and 4 is not appropriate.

Consequently, the present application is believed to be in condition for formal allowance, and an early and favorable reconsideration of this application is therefore requested.

Respectfully submitted,

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